

Safety Light Curtain Set

Finger Protection

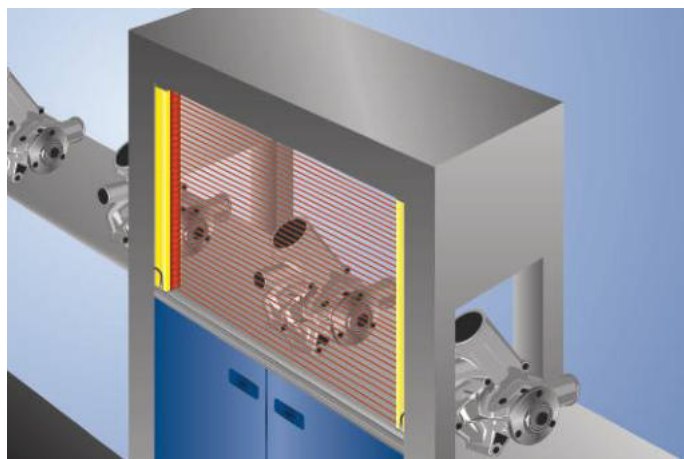
SEMG431

Part Number



- Easy configuration via wiring
- Protection field over the entire length of the housing for an installation without protrusion
- Quick alignment through visible red light
- Slim design for easy integration

These safety light curtains confidently solve all basic tasks. The basic function protection mode, restart inhibit and protection monitoring are standard and can be easily configured. The protective field always extends up to the end of the housing without protrusion. As a result, protection is easily provided even in confined installation conditions. The adequate mounting angle ZEMX001 is included in the delivery.



Technical Data

Optical Data

Range	0,25...6 m
Housing Length (L)	249 mm
Safety Field Height (SFH)	250 mm
Resolution	14 mm
Light Source	Red Light
Wavelength	630 nm
Max. Ambient Light	10000 Lux
Opening Angle	± 2,5 °

Electrical Data

Sensor Type	Set
Supply Voltage	19,2...28,8 V DC
Response Time	7,6 ms
Temperature Range	-25...55 °C
Storage temperature	-25...60 °C
No. Safety Outputs (OSSDs)	2
Safety Output Voltage Drop	< 2,3 V
PNP Safety Output/Switching Current	300 mA
Number of Signal Outputs	1
Signal Output Voltage Drop	< 2,5 V
Signal Output/Switching Current	100 mA
Short Circuit and Overload Protection	yes
Reverse Polarity Protection	yes
Protection Class	III

Mechanical Data

Housing Material	Aluminum
Disc Material	Polycarbonate
Degree of Protection	IP65/IP67
Connection	M12 × 1
Cable Length	300 mm

Safety-relevant Data

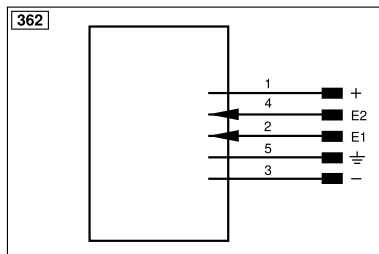
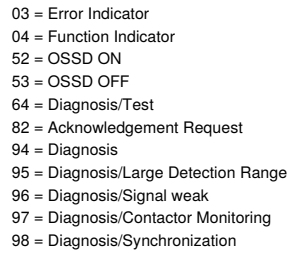
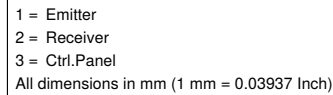
ESPE Type (EN 61496)	4
Safety Category (EN ISO 13849-1)	4
Performance Level (EN ISO 13849-1)	PL e
PFHD	1,60 × E-8 1/h
Mission Time TM (EN ISO 13849-1)	20 a
Safety Integrity Level (EN 61508)	SIL3
Safety Integrity Level (EN 62061)	SILCL3

Function

Finger Protection	yes
Scope of functions	Basic function
Scope of delivery	Mounting ZEMX001
Scope of delivery (Emitter; Receiver)	SEMG531; SEMG631
Connection Diagram No.	361 362
Control Panel No.	SR4 SR5
Suitable Connection Equipment No.	35 89
Suitable Mounting Technology No.	790 810 820

Complementary Products

Path-Folding Mirror Z2UG002
Protection Column with Path-Folding Mirror SZ000EU125NN01
Protection Column with Protective Screen SZ000EG125NN01
Protection column with protective screen Z2SS001
Protection column with Z2SU001 deflection mirror
Safety Relay SG4-00VA000R2, SR4B3B01S, SR4D3B01S
Software



Legend					
+	Supply Voltage +	nc	Not connected	EN _{BRG422}	Encoder B/B̄ (TTL)
–	Supply Voltage 0 V	U	Test Input	EN _A	Encoder A
~	Supply Voltage (AC Voltage)	Ü	Test Input inverted	EN _B	Encoder B
A	Switching Output (NO)	W	Trigger Input	AMIN	Digital output MIN
Ä	Switching Output (NC)	W–	Ground for the Trigger Input	AMAX	Digital output MAX
V	Contamination/Error Output (NO)	O	Analog Output	AOK	Digital output OK
Ṽ	Contamination/Error Output (NC)	O–	Ground for the Analog Output	SY In	Synchronization In
E	Input (analog or digital)	BZ	Block Discharge	SY OUT	Synchronization OUT
T	Teach Input	AMV	Valve Output	OLT	Brightness output
Z	Time Delay (activation)	a	Valve Control Output +	M	Maintenance
S	Shielding	b	Valve Control Output 0 V	rsv	Reserved
RxD	Interface Receive Path	SY	Synchronization	Wire Colors according to DIN IEC 60757	
TxD	Interface Send Path	SY–	Ground for the Synchronization		
RDY	Ready	E+	Receiver-Line	BN	Brown
GND	Ground	S+	Emitter-Line	RD	Red
CL	Clock	±	Grounding	OG	Orange
E/A	Output/Input programmable	SnR	Switching Distance Reduction	YE	Yellow
	IO-Link	Rx+/-	Ethernet Receive Path	GN	Green
PoE	Power over Ethernet	Tx+/-	Ethernet Send Path	BU	Blue
IN	Safety Input	Bus	Interfaces-Bus A(+)/B(-)	VT	Violet
QSSD	Safety Output	La	Emitted Light disengageable	GY	Grey
Signal	Signal Output	Mag	Magnet activation	WH	White
BI_D+/-	Ethernet Gigabit bidirect. data line (A-D)	RES	Input confirmation	PK	Pink
EN ₀ RS422	Encoder 0-pulse 0/Ü (TTL)	EDM	Contact or Monitoring	GNYY	Green/Yellow
PT	Platinum measuring resistor	EN _A RS422	Encoder A/Ä (TTL)		